



Zep Commercial Sales & Service
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Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name Heavy Duty Foaming Degreaser
Product code ZUHFD18
Date of issue 02/25/13 **Supersedes** 03/05/10

Emergency Telephone Numbers

For MSDS Information:
 Compliance Services 404-352-1680

For Medical Emergency
 (877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
 CHEMTREC: (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared By
 Compliance Services
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

WARNING!



CAUSES EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. VAPOR HARMFUL. CONTENTS UNDER PRESSURE.

Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120 °F. Keep out of the reach of children.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry

Dermal contact. Eye contact. Inhalation.

- Eyes** Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.
- Skin** May cause skin irritation. May cause allergic reactions in certain individuals. Skin inflammation is characterized by itching, scaling, or reddening.
- Inhalation** Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system (CNS) depression.
- Ingestion** May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects Contains material which may cause damage to the following organs: lungs, liver, heart, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea. Prolonged or repeated contact may dry skin and cause irritation. Overexposure of this product by inhalation or absorption can produce central nervous system depression resulting in headache, nausea and/or dizziness.

Carcinogenicity Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
Butane	106-97-8	1 - 5
Dipropylene glycol monobutyl ether; Glycol Ether DPnB; 1-(2-butoxy-1-methylethoxy)propan-2-ol	29911-28-2	1 - 5
Propylene Glycol; propane-1,2-diol	57-55-6	1 - 5
Diethylene Glycol Butyl Ether; 2-(2-butoxyethoxy)-ethanol	112-34-5	1 - 5
Citrus Terpenes; Citrus, ext.	94266-47-4	1 - 5
Soybean oil, Methyl ester	67784-80-9	1 - 5

Fatty acids, tall-oil	61790-12-3	1 - 5
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	68439-57-6	1 - 5
Alkyl(C9-11) alcohol, ethoxylated	68439-46-3	1 - 5
Alcohols, C12-16, ethoxylated	68551-12-2	1 - 5
propane	74-98-6	1 - 5

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.
Skin Contact	Flush affected skin with plenty of water. Get medical attention if irritation develops.
Inhalation	Move exposed person to fresh air. If irritation persists, get medical attention.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)



Flash Point	Not determined.
Flammable Limits	Not available.
Flammability	Non-flammable. (CSMA Method)
Fire hazard	CONTENTS UNDER PRESSURE. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Bursting aerosol containers may be propelled from a fire at high speed.
Fire-Fighting Procedures	Use an extinguishing agent suitable for the surrounding fire. Cool closed containers exposed to fire with water. Fire-fighters should wear appropriate protective equipment.

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see Section 8). Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Observe label precautions. Wash contaminated clothing before reusing. Wash thoroughly after handling.
Storage	CONTENTS UNDER PRESSURE. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name

Butane

Exposure limits

OSHA PEL 1989 (United States, 3/1989).

TWA: 800 ppm 8 hour(s).

TWA: 1900 mg/m³ 8 hour(s).

NIOSH REL (United States, 6/2009).

TWA: 800 ppm 10 hour(s).

TWA: 1900 mg/m³ 10 hour(s).

ACGIH TLV (United States, 2/2010).

TWA: 1000 ppm 8 hour(s).

AIHA WEEL (United States, 5/2010).

TWA: 10 mg/m³ 8 hour(s).

OSHA PEL 1989 (United States, 3/1989).

TWA: 1000 ppm 8 hour(s).

TWA: 1800 mg/m³ 8 hour(s).

NIOSH REL (United States, 6/2009).

TWA: 1000 ppm 10 hour(s).

TWA: 1800 mg/m³ 10 hour(s).

OSHA PEL (United States, 6/2010).

TWA: 1000 ppm 8 hour(s).

TWA: 1800 mg/m³ 8 hour(s).

ACGIH TLV (United States, 2/2010).

TWA: 1000 ppm 8 hour(s).

Propylene Glycol; propane-1,2-diol

propane

Personal Protective Equipment (PPE)

Eyes	Safety glasses.
Body	Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves.



Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]
pH 10 to 11 (liquid Contents)
Boiling Point Not available.
Specific Gravity 1.01
Solubility

Color Clear. Colorless to light yellow.
Odor Citrus
Vapor Pressure Not available.
Vapor Density Not available.
Evaporation Rate Not available.
VOC (Consumer) 8.1 % (w/w) 0.681 lbs/gal (81.6 g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Avoid contact with strong oxidizers, excessive heat, sparks or open flame.
Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.
Hazardous Decomposition Products carbon oxides (CO, CO₂)

Section 11. Toxicological Information

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m3	4 hours
Soybean oil, Methyl ester	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
propane-1,2-diol	LD50 Dermal	Rabbit	20800 mg/kg	-
	LD50 Oral	Rat	20 g/kg	-
Alkyl(C9-11) alcohol, ethoxylated	LD50 Oral	Rat	1378 mg/kg	-
	Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Rabbit	400 to 2000 mg/kg	-
1-(2-butoxy-1-methylethoxy)propan-2-ol	LD50 Oral	Rat	500 to 5000 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat - Female	3700 mg/kg	-
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-
Fatty acids, tall-oil	LD50 Oral	Rat	>10000 mg/kg	-

Section 12. Ecological Information

Environmental Effects Not available.

Aquatic Ecotoxicity



Product/ingredient name	Test	Result	Species	Exposure
propane-1,2-diol	-	Acute EC50 >1000 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 1020000 ug/L Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - <24 hours	48 hours
	-	Acute LC50 710000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
Alkyl(C9-11) alcohol, ethoxylated	-	Acute EC50 5.36 mg/L Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	-	Acute EC50 2686 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 8500 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	-	Acute EC50 4.53 mg/L Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	-	Acute EC50 >1000 mg/l	Daphnia	96 hours
1-(2-butoxy-1-methylethoxy)propan-2-ol	-	Acute LC50 841 mg/l	Fish	96 hours
2-(2-butoxyethoxy)ethanol	-	Acute LC50 1300000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 33 to 75 mm	96 hours

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Classification: Non-hazardous waste by Characteristic.
Origin: RCRA waste.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	-	Consumer commodity or Limited quantity	ORM-D	-	
TDG Classification	UN1950	AEROSOLS, non-flammable	2.2	-	
IMDG Class	UN1950	AEROSOLS, non-flammable	2.2	-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

Product name

2-(2-butoxyethoxy)ethanol

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations**California Prop 65**

No products were found.

Canada**WHMIS (Canada)**

Class A: Compressed gas.

Class D-2B: Material causing other toxic effects (Toxic).

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.